



# Conditional DUXC knockout mouse model

A conditional DUXC knockout mouse model for use as a basic research tool.

## Applications

- Basic research tool

## Technology Overview

**Organism:** Mus musculus, mouse

**Background:** C57BL/6

**Product format:** Live animals

**Description:** The Double homeobox (Dux) gene is a repeated gene array in humans and mice. In a C57BL/6 mouse background, this array was replaced with a single copy of the repeat containing the DUXC gene flanked by loxP sites at both ends. This created a conditional allele that can be deleted with Cre expression. Briefly, mouse Dux is not essential for viability or fertilization nor for zygotic genome activation, however the knockout embryos exhibit post-implantation development failures.

## Phase of Development

**TRL: 7-8**

Conditional DUXC knockout mice have been generated, characterized, and published.

## Desired Partnerships

This technology is now available for:

- License
- Sponsored research
- Co-development

Please contact our office to share your business' needs and learn more.

## Researchers

- [Michael Kyba, PhD](#), Professor, Department of Pediatrics

## References

1. Darko Bosnakovski, Micah D Gearhart, Si Ho Choi, Michael Kyba (January 2021), <https://doi.org/10.1093/biolre/ioaa179>, <https://academic.oup.com/biolreprod/article/104/1/83/5913241>, 104, 83–93

**Technology ID**

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**Category**

Life Sciences/Research Tools

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